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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/000,379
Filing Date: October 31, 2001
Appellant(s): MESTHA ET AL.

Patrick R. Roche
For Appellant



**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 5/03/2006 appealing from the Office action mailed 11/03/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| 6,222,648 | WOLF | 4-2001 |
| 5,612,902 | STOKES | 3-1997 |

Balasubramanian, Baja and Maltz, Martin S., "Refinement of Printer Transformations Using Weighted Regression", Proc. SPIE, Vol. 2658, (1996) pp. 334-340. (Submitted with 3-25-2004 IDS).

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3 are rejected under 35 U.S.C. 102(e) and/or 102(a) as being anticipated by Wolf (US 6,222,648)

Wolf discloses a method of processing transient errors (such as printer drift - see abstract) produced in a color measurement system monitoring a color producing process, comprising 1) implementing a model of the color producing process (see MAP1) 2) monitoring an input to the color producing process (the input - *RcGcBc* - from the document that occurs in MAP2 - see column 6, lines 18-21) 3) predicting an expected color signal based on the model and monitored input (the outputs of MAP1 and MAP2) 4) measuring an output color (via densitometer and spectrophotometer 70), produced by the color producing process to produce a measured color signal, 5) comparing the measured color signal to the expected color signal to produce a color error value (via MAPP 2 - comparison of document signal - *this would be the input signal RcGcBc* - with measured signal) and selectively replacing the measured color signal based on the color error (see column 4, lines 36-53). The output of MAP1 is turned into a densitometer signal which is fed into MAP2.

As to claim 2, Wolf discloses replacing the measured color signal with a predicted color signal based on the expected color signal (see column 4).

As to claim 3, Wolf discloses storing the modifications (see column 4, lines 43-45).

Claims 4 and 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolf as applied to claims 1-3 above, and further in view of Balasubramanian-1996 (the second NPL IDS document) and Stokes (US Patent 5,612,902).

Wolf does not disclose the models used or historical data. However, one would appreciate that any well known model can be utilized.

Balasubramanian discloses that models can be used for modeling coloring process, and specifies a Neugebauer model as a well-known model that can be used. Stokes discloses various printer models that can function as approximations of a printer device. Stokes discloses that an empirical model can be used, i.e., an on-line statistical parameterized model, and discloses that this model is used to create customized compensation values (see column 2, lines 4-21). One in the art would appreciate that such a model would be built on a large number of measurements and would thus provide optimal accuracy, at a trade off which is increased complexity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an empirical model in order to achieve optimal accuracy.

Stokes also discloses a Viggiano analytical model (described in column 5, line 14 to column 5, line 51), i.e., a multidimensional numerical model (see claim 1, especially

in column 9, lines 3-8, which claim this model as a multidimensional lookup table, i.e., a multidimensional numerical model) and discloses that this model allows for faster modeling of the printer functioning (this model requires five sample steps). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such model in order to achieve faster modeling of the printer function.

**(10) Response to Argument**

As a general point, the Examiner takes the position that applicant's interpretation of the claims is narrower than warranted.

Applicant, on pages 9 and 10, and again on page 13, argues that Wolf "does not discloses or suggest that the signal from densitometer/spectrophotometer 70 is replaced under any circumstances", on page 9, lines 10-12 of the Brief. Applicant does acknowledge that Wolf does provide for a correction (see lines 20-23 of the Brief). Applicant also acknowledges later in the brief, at pages 10-12, that MAPP2, which processes the sensor signals, has transformation equations or tables are periodically updated. Applicant essentially argues that this correction is not the same as a signal replacement. The Examiner disagrees. Since correcting one of the inputs or tables in Wolf results in a replacement of the signal, the structures of Wolf meet the replacement function limitation.

Page 9-10 of applicant's brief further highlights the discrepancy between the various scope of claim interpretation. Applicant essentially argues that "glitches or transient errors" are not "drifts" (see page 10, lines 15-19). Examiner disagrees.

Glitches, transient errors, and drifts are all the same thing - errors or mistakes in the signals which are corrected by the various structures in Wolf.

On page 11, Applicant argues that Wolf does not disclose or suggest "processing transient errors". But as noted above, applicant does acknowledge that Wolf correct the equations and tables, and therefore meets the claim limitations.

On pages 12 of the Brief, Applicant argues that Wolf does not disclose or suggest comparing a measured color signal to either the output of MAPP1 or MAPP2. However, this is not what the claim limitation calls for. The comparison step calls for "comparing the measured color signal to the expected color signal to produce a color error value". Wolf meets this step. Wolf essentially compares the measured color signal (output from Densitometer/spectrophotometer 70) with input or expected signal (RcGcBc) to produce a transformation value which is an error signal. This function meets the claim scope.

In the final paragraph of page 12, Applicant argues that Wolf does not disclose signal replacement. However, as noted above, the transformation or table effectively replaces signals. Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the signal from the sensor is tested) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that claim 2 is not anticipated by column 4 of Wolf, arguing that Wolf does not disclose replacing the measured color signal with a predicted color signal, and requests a "more precise citation". In column 4, lines 19-25, for example, Wolf suggests using look up tables for signal correction. These tables are predicted color signals. Wolf also discloses these look-up tables at lines 10-12, lines 40-45, and lines 55-63. Substantially of column 4 is devoted to look-up tables which are tables for color or signal replacement.

As to claim 4, applicant argues that Balasubramanian-1996 and Wolf do not disclose using historical color signals. However, Stokes discloses that an empirical model can be used, i.e., an on-line statistical parameterized model, and an empirical/statistical model involves historical values.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, with respect to claim 4, motivation would have been generally available to one in the art. One in the art would appreciate that such models would be built on a large number of measurements

and would thus provide optimal accuracy, at a trade off which is increased complexity. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such an empirical model in order to achieve optimal accuracy.

With respect to claim 5, Stokes discloses that this model allows for faster modeling of the printer functioning (this model requires five sample steps) and discusses the speed advantages in the column 2 and 3 (see, for example, column 3, lines 28-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have utilized such model in order to achieve faster modeling of the printer function.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

George Koch

Conferees:

Chris Fiorilla

Steven Griffin